

CASE
OF
ANEURISM OF THE AORTA,
WITH DISEASE OF THE SPINAL CORD.

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STEWART, a chairman, æt. 34. Since the middle of January last has complained of frequent uneasiness and pain in both sides, more particularly the left; has also, for three or four months, been troubled with difficulty of breathing, upon any considerable exercise; and lately has had much difficulty in swallowing solids. Since the middle of April he has not been able to carry any considerable load. Yesterday he carried to Newhaven (distance one mile and a half) a bag of about twenty pounds weight, and bathed in the sea whilst warm; he had been in the water about a quarter of an hour, when he became very confused, and on coming out, fell amongst some stones; he then bled profusely at the mouth and nose, and, from that moment, lost all voluntary motion and sensation of his upper extremities. He was taken



up and carried to an adjoining house; was afterwards put into a warm-bath, and, in the evening, was bled at the arm, and blistered on the nape of the neck; but passed a very restless night with frequent shivering fits, which were reported to resemble convulsions.

16th July.—To-day he was brought to town; had vomited fluid and coagulated blood several times since last night, and when I saw him, at 5 P. M., he had just brought up a large quantity of fluid blood, which afterwards coagulated. He answered questions distinctly, although previously he had talked incoherently; he seemed somewhat lethargic; I therefore spoke loud, and repeated my questions until answered. He said that he was sore all over; but added, that the pains were most severe in the head, chest, and bowels. His features were expressive of much anxiety, and he almost constantly tossed about his head and legs, while his arms were cold and motionless, having a death-like pallid appearance. When he moves his extremities, he invariably contracts the muscles of the mouth, as if making some great exertion. I requested him to squeeze my hand; he then threw the muscles of his face into action, and said he squeezed with his whole force, while not a muscle of his arm moved, nor was he sensible there when pinched. Pulse 120; weak at the wrists and ankles, but much stronger proportionally in the carotids, where they could be seen beating at the distance of five or six feet. No palpitation at the heart; breathing natural; heat of the head augmented, but greatly diminished in all

the extremities ; considerable thirst ; tongue very white ; pupil natural ; skin dry ; complains of passing his urine involuntarily.

8 P. M. Seven or eight ounces of fluid blood have been discharged by the mouth.

11 P. M. Says he is still very unwell, and tosses about his head and legs. On introducing the catheter, he used great force with his legs.

17th, 8 A. M. Has slept none, retains his urine, and passes it voluntarily.

11 A. M. Has passed two very dark bloody alvine evacuations.

9 P. M. Does not move his head and legs so often.

11 P. M. Breathes softly, and seems in a quiet sleep ; he received an injection with fifty drops of laudanum two hours ago.

18th, Slept several hours last night ; about four o'clock he talked quite rationally ; in a few minutes after, hemorrhage occurred at the mouth, and during this he expired.

20th July, 12 noon.—*Dissection*.—The body is rather muscular, with little fat. Heart and lungs natural ; some slight adhesions between the pleuræ. An aneurismal tumour, of the size of a small orange, was observed on the left side of the spine, at the upper part of the root of the left lung. It freely communicated with the aorta and œsophagus, opposite to the fourth and fifth vertebres ; indeed, in this part, almost the whole caliber of the œsophagus was destroyed. The left side of the bodies of the third, fourth, fifth and sixth vertebres were quite

bare, and absorption had proceeded in many parts to the depth of a third of an inch. The stomach contained a large, firm coagulum of blood, with prolongations of several inches into both œsophagus and duodenum, of which cavities it had taken an exact shape. The colon was greatly distended with air, and was of a deep dark colour, from the blood it contained. The small intestines were natural, with only some dark spots from the same cause.

Having removed the posterior arches of the three inferior cervical and of the whole of the dorsal vertebres, we observed the cellular substance on the outside of the dura mater of a much darker red than usual, and slightly infiltrated with a bloody purulent looking matter. Between the third dorsal vertebre and the sixth, there existed some extravasated blood immediately underneath the dura mater. Above the second dorsal vertebre the cord itself was firm, and appeared perfectly healthy; but below this, it gradually became soft and yellowish; and opposite to the fifth, sixth, seventh, and eighth, its substance assumed both the consistence and colour of thick cream, with no remains of organization. The cord at this part was so carefully inspected, that, if any medullary band had existed amongst the soft matter, it must have been seen. Three or four of the vertebres were in many parts denuded of their soft covering, where they form the anterior bony parietes of the cord: in some parts they were merely rough; in others, the absorption of the osseous matter was considerable. Nowhere was there

any sensible deposition of lymph between the dura mater and arachnoid. The head was not opened; and we had much difficulty in obtaining liberty to open so much of the spine, which was done fifty-eight hours after death.

The treatment was synapisms to the legs, which caused some heat and pain; the head was shaved; and cold water was frequently applied at the request of the patient, who said it relieved the pain. Turpentine and laudanum enemata were likewise employed: two of the former remained twelve hours, but did not seem to assist the evacuation of the dark bloody matter.

We have no hesitation in attributing the disease of the spinal cord to the aneurism; for, although the absorption was most extensive on the anterior surface of the bodies of the vertebres, yet the disease seems to have passed through these spongy parts, and to have shewed itself in the same process of absorption on the posterior surface, although there could be here no pressure from the aneurism, which is generally considered as the cause of the absorption of the osseous matter. It is more than probable that the disease of the spinal cord had existed for some considerable time previous to the bursting of the aneurism, and, of course, that all the sudden serious symptoms were owing to the great loss of blood.

Softening and disorganization of the dorsal portion of the spinal cord are commonly attended with convulsions of the lower extremities, and followed by pa-

ralysis : but still some few cases are on record where this portion of the cord has been found destroyed, and yet no paralysis has supervened. I may mention the case of a gun-shot wound, which occurred in the practice of Desault, where the spinal cord was completely divided opposite to the tenth dorsal vertebre. M. Janson, of Lyons, also mentions a case, where the inferior dorsal portion of the cord was converted into a pulpy matter. Olivier, in his work on the Diseases of the Spinal Cord, records a case of M. Van-de-Keere, where there was extensive caries of the bodies of the dorsal vertebres, with complete absorption of the cord, between the ninth dorsal vertebre and first lumbar. The termination of the superior end was bulbous, whilst that of the inferior was compressed backwards. The colour and consistence of the cord remained unaltered. In Desault's and Van-de-Keere's case, there was not only no paralysis, but perfect sensation remained in the lower extremities until death. From the impossibility of explaining the above cases, M. Andral *junior* is inclined to doubt their accuracy ; but if medical men were to draw such inferences, I need scarcely say how injurious it would be to the future improvement of our profession.

Magendie, who is exceedingly ingenious in many of his observations, endeavours to explain the difficulty, by considering the pia mater as one of the organs or conductors of sensation. Dreading that our patient Stewart might have hurt the spine in

his fall on coming out of the water, for he could give no very distinct account how he fell, I carefully felt all the spinous processes, and tapped them firmly with the points of my fingers, but he said he had no pain there, nor ever had. M. Olivier states, that the most constant symptom of this disease is an excessively acute deep seated pain, accompanied with a feeling of burning heat along the spine, greatly exasperated by motion; and adds, that all authors who have written on this disease, with the exception of M. Pinel *junior*, who has mentioned two cases, have noticed this pain in the back. M. Andral * however says, that this pain has been remarked in a very few instances only, and adds, that it still remains for further experience to point out how far this local pain indicates the existence and seat of the inflammation of the cord. Certainly Stewart never complained of this local pain in the spine, not even when he was freely moved.

That general convulsions may have occurred in this case is possible, as the friends declare, that, during the first night after bathing in the sea, his face was frequently twisted to one side, with fixed staring eyes, and that then it required several persons to hold him in bed; but certainly at no time when I saw him did any thing resembling convulsions occur. He frequently threw the muscles of his face

* Dict. de Médecine, tome 18.

into action on turning over his legs, or drawing them up, but this was evidently a voluntary motion ; and at no time afterwards were his lower extremities paralysed.

Regarding the paralysis and loss of sensation of the upper extremities, I can give no explanation, nor am I aware of a similar case on record.